

CLAIMS

1. A Group B Streptococcus polypeptide or protein having a sequence selected
5 from those described in fig 1, or fragments or derivatives thereof.
2. Derivatives or variants of the proteins, polypeptides, and peptides as claimed in
claim 1 which show at least 50% identity to those proteins, polypeptides and peptides
claimed in claim 1.
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3. A Group B Streptococcus polypeptide or protein, or derivative or variant
thereof, as claimed in claim 1 or claim 2 , which is isolated or recombinant.
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4. A nucleic molecule comprising or consisting of a sequence which is:
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 - (i) any of the DNA sequences set out in figure 1 herein or their RNA
equivalents;
 - (ii) a sequence which is complementary to any of the sequences of (i);
 - (iii) a sequence which codes for the same protein or polypeptide, as those
sequences of (i) or (ii);
 - (iv) a sequence which shows substantial identity with any of those of (i), (ii)
and (iii); or
 - (v) a sequence which codes for a derivative, or fragment of a nucleic acid
molecule shown in figure 1.
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5. A vector comprising one or nucleic acid molecules as defined in claim 4.
6. A vector as claimed in claim 4 further comprising nucleic acid encoding any
one or more of the following: promoters, enhancers, signal sequences, leader

sequences, translation start and stop signals, DNA stability controlling regions, or a fusion partner.

7. The use of a vector as claimed in claim 5 or claim 6 in the transformation or
5 transfection of a prokaryotic or eukaryotic host.

8. A host cell transformed with a vector as defined in claim 5 or claim 6..

9. A process for producing a Group B Streptococcus polypeptide or protein, or
10 derivative or variant thereof, as claimed in claim 1 or claim 2, the process comprising
expressing the polypeptide or protein in a host cell as claimed in claim 8.

10. An antibody, an affibody, or a derivative thereof which binds to one or more of
the proteins, polypeptides, peptides, fragments or derivatives thereof, as defined in any
15 one of claims 1 to 3.

11. An immunogenic composition comprising one or more of the proteins,
polypeptides, peptides, fragments or derivatives thereof as defined in any one of
claims 1 to 3.

20 12. An immunogenic composition as claimed in claim 11 wherein the proteins,
polypeptides, peptides, or fragments or derivatives thereof include ID-65 or ID-83, ID-
89, ID-93 or ID-96.

25 13. An immunogenic composition as claimed in claim 11 or claim 12 which is a
vaccine.

14. An immunogenic composition comprising one or more of the nucleic acid
sequences as defined in claim 4.

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15. An immunogenic composition as claimed in claim 14 wherein the nucleic acid sequences include ID-65 or ID-66.

16. An immunogenic composition as claimed in claim 14 or claim 15 which is a 5 vaccine.

17. Use of an immunogenic composition as defined in any one of claims 11 to 16 in the preparation of a medicament for the treatment or prophylaxis of Group B Streptococcus infection.

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18. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one antibody, affibody, or a derivative thereof, as defined in claim 10.

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19. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one protein, polypeptide, peptide, fragments or derivatives as defined in any one of claims 1 to 3.

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20. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one nucleic acid molecule as defined in claim 4.

21. A kit for the detection of Group B Streptococcus comprising at least one antibody, affibody, or derivatives thereof as defined in claim 10.

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22. A kit for the detection of Group B Streptococcus comprising at least one Group B Streptococcus protein, polypeptide, peptide, fragment or derivative thereof as defined in any one of claims 1 to 3.

23. A kit for the detection of Group B Streptococcus comprising at least one nucleic acid molecule as defined in claim 4.

24. A method of determining whether a protein, polypeptide, peptide, fragment or derivative thereof as defined in any one of claims 1 to 3 represents a potential anti-microbial target which comprises inactivating said protein and determining whether Group B Streptococcus is still viable.